larger two originate rather before the other two, which they exceed in length at every period of their development. Among other *Labiatæ, Ajuga reptans, Scutellaria columnæ* and *commutata,* present us with the same phænomena. In *Phlomis fruticosa* the helmet is formed of two segments of the corolla, as in *Lamium.*

In the *Scrophulariaceæ* the segments of the nascent corolla are also equal, but only at their origin. The inequality always manifests itself very soon, and earlier in proportion to the subsequent irregularity of the corolla (*Antirrhinum majus, Linaria cymbalaria, Penstemon Scoulteri, Collinsia bicolor, Scrophularia verna*). In the genera which possess a fifth, supplemental stamen, this is formed at the same time as the two smaller and in the spot which remains vacant in the *Labiatæ.* The symmetry is then perfect.

In the *Aristolochiaceæ* (*Aristolochia Clematitis* and *Pistolochia*), the simple perigone composing the flower is, at its origin, a kind of tube, very short, at first with an equal and as it were truncated border; but this state persists but a very short time. One side of the mouth of the tube becomes much developed, so as to form the well-known limb of the Aristolochias, while the other undergoes but slight expansion.

In the *Verbenaceæ* (*Verbena urticæfolia*) and in the *Dipsaceæ* (*Scabiosa ucranica* and *atropurpurea*), the irregular corolla follows the same law of development.

The petals of the *Leguminosæ* are equal and alike at the origin of the flower; but a difference of form and size very soon becomes evident (*Cytisus nigricans* and *laburnum, Ulex europæus, Erythrina cristagalli*).

The case is the same in the *Polygalaceæ* (*Polygala austriaca* and *chamæbuxus*). From all these circumstances we may conclude that the irregularity of the corolla, at least in the families cited in this note, is a condition arising after the first appearance of the flower, and is a consequence of an inequality of development among the different parts which compose the floral envelope.—*Comptes Rendus,* June 8, 1846.—A. H.

EXTRAORDINARY FLIGHT OF BUTTERFLIES.

To Richard Taylor, Esq.

Philosophical Hall, Leeds, July 20, 1846.

Dear Sir,—As there is an account of a large flight of *Butterflies,* in one of the Canterbury papers, which passed over from France to England during the present month, without any precise statement as to the *species,* it would be very desirable if some reader of the 'Annals' could furnish that piece of information, so that a more *complete* record of the circumstance might be preserved. Should the above account have escaped your notice, I venture to send a copy of it, taken from the Leeds Mercury of July 18th:—

"*Extraordinary Flight of Butterflies.*—One of the largest flights of Butterflies ever seen in this country crossed the Channel from France to England on Sunday last. Such was the density and extent of the

cloud formed by the living mass, that it completely obscured the sun from people on board our continental steamers on their passage for many hundreds of yards, while the insects strewed the decks in all directions. The flight reached England about twelve o'clock at noon and dispersed themselves inland and along shore, darkening the air as they went. During the sea passage of the butterflies the weather was calm and sunny, with scarce a puff of wind stirring, but an hour or so after they reached *terra firma* it came on to blow great guns from the S.W., the direction whence the insects came."—*Canterbury Journal.*

If the time occupied in the passage over could be ascertained it would also be interesting—at all events the hour at which they were observed by the people on board the steamer and the distance from land could be ascertained, and that would go some way towards the rate at which they travelled, the period of their arrival being stated.

I am, dear Sir, yours very truly,

HENRY DENNY, A.L.S.

Do Plants placed in a Solution containing several Substances, absorb certain Substances in preference to others? By M. BOUCHARDAT.

Theodore de Saussure, who made so many beautiful experiments on vegetation, has answered the question which I have here proposed in the affirmative; but the results which he obtained do not appear to me sufficiently free from all chances of error to render it unnecessary to return to this subject. The way in which the experiments of Theodore de Saussure were made may be stated in a few words. He dissolved in 793 cubic centimetres of water two or three different salts, each weighing 637 milligrammes; he analysed the residue of the solution when it was reduced one-half by absorption by the roots of the plants. The quantity of salts contained in the residue, *minus* that which the liquid contained before the introduction of the plants, indicated the quantity of salts absorbed. Theodore de Saussure saw that with several salts this quantity was very unequal; thus, to cite only one example, in a mixed solution of nitrate of lime and muriate of ammonia, a *Polygonum* absorbed two of nitrate of lime and fifteen of muriate of ammonia.

The differences were particularly great with the soluble salts of lime; their absorption appears infinitely less easy than that of several other salts; but the following experiment throws much doubt on the conclusion to be drawn from the facts cited by Theodore de Saussure.

In a solution in distilled water containing one gramme of sulphate of soda and one gramme of chloride of sodium to the litre, I planted a *Polygonum persicaria*, and when half the solution was absorbed, I examined the residue, and found in it, besides the oxalate of ammonia, a notable quantity of lime, which did not exist in it previously, and which had been furnished by the vegetable.

This then is one capital cause of error which escaped Theodore de Saussure.

When a vegetable is immersed in an aqueous solution, there is